

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 10

IN THE MATTER OF:)	
)	U.S. EPA Region 10
)	CERCLA Docket No. 10-2015-0079
Lockheed West Seattle Superfund Site)	
Seattle, King County, Washington)	
)	
Lockheed Martin Corporation,)	
Respondent)	
)	
)	
Proceeding under Section 106(a))	UNILATERAL ADMINISTRATIVE
of the Comprehensive Environmental)	ORDER FOR REMEDIAL DESIGN
Response, Compensation, and Liability)	AND REMEDIAL ACTION
Act, 42 U.S.C. § 9606(a).)	
)	
)	

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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Order (Order) is issued under the authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9606(a). This authority was delegated to the Administrator of the United States Environmental Protection Agency (EPA) by Executive Order No. 12580, 52 Fed. Reg. 2923 (Jan. 23, 1987), and further delegated to the Regional Administrators by EPA Delegation Nos. 14-14-A and 14-14-B. This authority was further redelegated by the Regional Administrator of EPA Region 10 to the Remedial Cleanup Program Manager of the Office of Environmental Cleanup by Region 10 Delegation Number 14-14-B(1).

2. This Order pertains to property located in the southwest corner of Elliott Bay, and consists of the areal extent of sediment contamination from Lockheed Shipyard No. 2 which was located at 2330 SW Florida Street in West Seattle, King County, Washington (the Lockheed West Site, or the Site). This Order directs Respondent to perform the remedial design and remedial action (RD/RA) described in the Record of Decision relating to the Site signed on August 28, 2013, by the Program Manager of the Remedial Cleanup Program, EPA Region 10, along with the Explanation of Significant Difference (ESD) signed on February 12, 2015.

3. EPA has notified the State of Washington (the State), the Muckleshoot Indian Tribe and the Suquamish Tribe (the Tribes) of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

II. PARTIES BOUND

4. This Order applies to and is binding upon Respondent and its successors and assigns. Any change in ownership or control of the Site or change in corporate or partnership status of a Respondent, including, but not limited to, any transfer of assets or real or personal property, shall not alter Respondent's responsibilities under this Order.

5. Respondent is liable for implementing all activities required by this Order.

6. Respondent shall provide a copy of this Order to each contractor hired to perform the Work required by this Order and to each person representing Respondent with respect to the Site or the Work, and shall condition all contracts entered into hereunder upon performance of the Work in conformity with the terms of this Order. Respondent or its contractors shall provide written notice of the Order to all subcontractors hired to perform any portion of the Work required by this Order. Respondent shall nonetheless be responsible for ensuring that its contractors and subcontractors perform the Work in accordance with the terms of this Order.

III. DEFINITIONS

7. Unless otherwise expressly provided in this Order, terms used in this Order that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in its appendices, the following definitions shall apply solely for the purposes of this Order:

“CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601-9675.

“Day” or “day” shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal or state holiday, the period shall run until the close of business of the next business day.

“Ecology” shall mean the Washington State Department of Ecology and any successor departments or agencies of the State.

“Effective Date” shall mean the effective date of this Order as provided in Section XXXII.

“EPA” shall mean the United States Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

“EPA Hazardous Substance Superfund” shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

“Explanation of Significant Difference” or “ESD” shall mean additional information regarding any remedial or enforcement action taken after adoption of a final remedial action plan, which EPA must publish when such action differs in any significant respects from the originally published final plan. At the time that this Order was issued, The Lockheed West Seattle Site had one ESD (February 12, 2015), attached as Appendix D.

“Institutional Controls” or “ICs” shall mean Proprietary Controls and State or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices that: (i) limit land, water, or other resource use to minimize the potential for human exposure to Waste Material at or in connection with the Site; (ii) limit land, water, or other resource use to implement, ensure non-interference with, or ensure the protectiveness of the

Remedial Action pursuant to this Order; and/or (iii) provide information intended to modify or guide human behavior at or in connection with the Site.

“Institutional Control Implementation and Assurance Plan” or “ICIAP” shall mean the plan for implementing, maintaining, monitoring, and reporting on the ICs set forth in the ROD and ESD, prepared in accordance with the Statement of Work (SOW).

“Interest” shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

“Long Term Monitoring and Maintenance” or “LTMM” shall mean all activities required to monitor and maintain the effectiveness of the Remedial Action as required under the Long Term Monitoring and Maintenance Plan approved or developed by EPA pursuant to Section X (Work to be Performed) and the SOW, and maintenance, monitoring, and enforcement of Institutional Controls as provided in the ICIAP.

“Muckleshoot Indian Tribe” is a sovereign nation and federally recognized Indian tribe whose usual and accustomed fishing lands include this Site.

“National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

“Order” shall mean this Unilateral Administrative Order, all appendices attached hereto, and all documents incorporated by reference into this document. In the event of conflict between this Order and any appendix or other incorporated documents, this Order shall control.

“Paragraph” shall mean a portion of this Order identified by an Arabic numeral or an upper or lower case letter. References to paragraphs in the SOW will be so identified, e.g., “SOW Paragraph 15.”

“Parties” shall mean EPA and Respondent.

“Performance Standards” shall mean the cleanup standards and other measures of achievement of the goals of the Remedial Action, set forth in the ROD, ESD, and SOW.

“Proprietary Controls” shall mean easements or covenants running with the land that (i) limit land, water, or other resource use and/or provide access rights and (ii) are created pursuant to common law or statutory law by an instrument that is recorded by the owner in the appropriate land records office.

“RCRA” shall mean the Resource Conservation and Recovery Act, also known as the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992.

“Recontamination” shall mean concentrations of hazardous substances above the clean-up levels that are from off-Site sources as defined by LTMMMP sampling.

“Record of Decision” or “ROD” shall mean the EPA Record of Decision relating to the Lockheed West Superfund Site, signed on August 28, 2013, by the Program Manager of the Remedial Cleanup Program, EPA Region 10, and all attachments thereto. The ROD is attached as Appendix A.

“Remedial Action” shall mean all activities Respondent is required to perform under the Order to implement the ROD and ESD, in accordance with the SOW, the final approved remedial design submission, the approved Remedial Action Work Plan, and other plans approved by EPA, including implementation of Institutional Controls, until the Construction Performance Standards are met, and excluding performance of the Remedial Design, LTMM, and the activities required under Section XV (Retention of Records).

“Remedial Action Work Plan” shall mean the document developed pursuant to Paragraph 31 (Remedial Action) and approved by EPA, and any modifications thereto.

“Remedial Design” shall mean those activities to be undertaken by Respondent to develop the final plans and specifications for the Remedial Action pursuant to the Remedial Design Work Plan.

“Remedial Design Work Plan” shall mean the document developed pursuant to Paragraph 30 (Remedial Design) and approved by EPA, and any modifications thereto.

“Respondent” shall mean Lockheed Martin Corporation.

“Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in monitoring and supervising Respondent’s performance of the Work to determine whether such performance is consistent with the requirements of this Order, including costs incurred in reviewing plans, reports, and other deliverables submitted pursuant to this Order, as well as costs incurred in overseeing implementation of this Order, including, but not limited to, payroll costs, contractor costs, travel costs, and laboratory costs.

“Section” shall mean a portion of this Order identified by a Roman numeral.

“Site” shall mean the Lockheed West Seattle Superfund Site in Seattle, King County, Washington, as depicted generally on the map attached as Appendix C. The 40-acre Site includes the in-water marine sediments where the former Lockheed Shipyard No. 2 was located (the shipway and dry docks were located in the water over the sediments). The Site also includes a narrow shoreline bank defined as areas extending from plus [+] 11.3 feet mean higher high water (MHHW) to intertidal sediments at minus [-] 10 feet mean lower low water (MLLW) along the northern and eastern shorelines, and subtidal sediments that extend from minus (-) 40 to -50 feet MLLW in historically dredged areas. The Site also includes numerous pilings that remain within the footprint of the former shipway and pier structures in the northwestern portion of the Site.

“State” shall mean the State Washington.

“Statement of Work” or “SOW” shall mean the statement of work for implementation of the Remedial Design, Remedial Action, and LTMM at the Site, as set forth in Appendix B to this Order and any modifications made in accordance with this Order. The Statement of Work is incorporated into this Order and is an enforceable part of this Order as are any modifications made thereto in accordance with this Order.

“Supervising Contractor” shall mean the principal contractor retained by Respondent to supervise and direct the implementation of the Work under this Order.

“Suquamish Tribe” is a sovereign nation and federally recognized Indian tribe whose usual and accustomed fishing lands include this Site.

“Transfer” shall mean to sell, assign, convey, lease, mortgage, or grant a security interest in, or where used as a noun, a sale, assignment, conveyance, or other disposition of any interest by operation of law or otherwise.

“United States” shall mean the United States of America and each department, agency, and instrumentality of the United States, including EPA.

“Waste Material” shall mean: (i) any “hazardous substance” under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (ii) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (iii) any “solid waste” under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and (iv) any “hazardous material” under WAC Chapter 173-303.

“Work” shall mean all activities Respondent is required to perform under this Order, except those required by Section XV (Retention of Records).

IV. FINDINGS OF FACT

8. The Lockheed West Seattle Superfund Site encompasses 40 acres located near the confluence of the West Waterway and Elliott Bay, on the western side of the city of Seattle, Washington. The in-waterway marine sediment Site is predominantly subtidal, but also includes intertidal and shoreline portions. Elliott Bay and the Duwamish Waterway are shorelines of statewide significance under the Shoreline Management Act and the Coastal Zone Management Program. Both are a part of the Puget Sound, an estuary of national significance under the National Estuary Program.

9. Prior to industrial development, the Site and surrounding area consisted of an intertidal delta at the mouth of the Duwamish River. Most of the original wetlands and mudflats were lost during construction of the Lower Duwamish Waterway and Harbor Island, and as a result of the dredging of intertidal areas on the northern terminus of the current Port (of Seattle) Terminal 5. At the start of World War II, the Puget Sound Bridge and Dredge Company owned the Site and operated a shipyard there. This company provided ship repair, maintenance, and vessel construction from piers, dry docks, and a shipway. Industrial activities from the dry docks and shipway generated considerable sandblast grit that accumulated on and contaminated

underlying sediments. The Lockheed Shipbuilding and Construction Company purchased Site assets in 1959 and continued operating the shipyard until 1987, when it ceased operations. In 1988, the Port of Seattle (Port) purchased the adjacent upland property and the harbor leases from Lockheed Martin. In 1996, the Port partially discontinued the harbor leases, causing some of them to be returned to the Washington State Department of Natural Resources (DNR) management. The Port and DNR now each manage portions of the Site.

10. Ship construction, dry dock ship repairs, vessel sandblasting, and painting resulted in contamination of underlying sediments in Elliott Bay. The primary contaminants found and studied in sediments at the Site are metals, polychlorinated biphenyls (PCBs), dioxin/furans, and carcinogenic polycyclic aromatic hydrocarbons (cPAHs).

11. Actual or potential releases of contaminants at the Site include, but are not limited to, the upland areas of the Site where shipyard support operations formerly took place and further led to contamination of the in-waterway portion of the Site. Contaminant pathways included soil, surface water and groundwater. The various shipways and dry docks located on the Site and used to build and repair ships also saw the release of contaminants into the surface water and the underlying sediments.

12. Estimated cancer and non-cancer risks for contaminants of potential concern (COPC) are higher for seafood consumption scenarios than for direct sediment exposure scenarios. Elevated cancer and/or non-cancer effects were determined for Tribal adult and child seafood consumption, clamming, beach play and netfishing, however. Selected COPCs pose ecological risks above regulatory thresholds for the benthic invertebrate community, as well as for crabs, fish and sandpipers.

13. Eight Site contaminants were identified as risk-drivers which are based on the absolute magnitude of risk and on the relative contribution to total risk for a given human health exposure scenario or ecological receptor. The risk-drivers are arsenic, copper, lead, mercury, TBT, cPAHs, total PCBs and dioxins/furans.

14. Lockheed Martin is the successor corporation to the Lockheed Shipbuilding and Construction Company, which purchased Site assets from the Puget Sound Bridge and Dredge Company in 1959 and subsequently operated the shipyard for the next 28 years.

15. Pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, EPA placed the Site on the National Priorities List (NPL), set forth at 40 C.F.R. Part 300, Appendix B, by publication in the Federal Register on March 7, 2007, Federal Register Volume 72, #44.

16. In response to a release or a substantial threat of a release of a hazardous substances at or from the Site, Lockheed Martin commenced a Remedial Investigation and Feasibility Study (RI/FS) for the Site on March 29, 2006, pursuant to 40 CFR § 300.430.

17. Respondent completed an RI/FS Report on July 1, 2012.

18. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, EPA published notice of the completion of the FS and of the proposed plan for Remedial Action on June 29, 2012, in a major local newspaper of general circulation. EPA provided an opportunity for written and oral

comments from the public on the proposed plan for Remedial Action. A copy of the transcript of the public meeting is available to the public as part of the administrative record upon which the Manager of the Remedial Cleanup Program, EPA Region 10, based the selection of the response action.

19. The decision by EPA on the Remedial Action to be implemented at the Site is embodied in a final ROD executed on August 28, 2013, on which the State had a reasonable opportunity to review and comment on and which the State has given its concurrence. The ROD includes a responsiveness summary to the public comments. Notice of the final plan was published in accordance with Section 117 (b) of CERCLA, 42 U.S.C. § 9617(b).

20. In May 2014, EPA recognized that ROD Tables 12 and 23 contained three transcription errors. The units for certain COCs (PCBs, phthalates, and PAHs) were inadvertently listed as micrograms per kilogram organic carbon (ug/kg – OC) instead of milligrams per kilogram organic carbon (mg/kg – OC); references for the Cleanup Levels for certain COCs were not cited correctly; and the spatial scale of exposure, or compliance basis, was mistakenly listed as “Sitewide” instead of “Subtidal.” As a result, an ESD was issued by EPA on February 12, 2015, correcting these mistakes.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

21. Based on the Findings of Fact set forth above and the administrative record, EPA has determined that:

a. The Lockheed West Superfund Site is a “facility” as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. Respondent is a “person” as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

c. Respondent is a liable party under one or more provisions of Section 107(a) of CERCLA, 42 U.S.C. § 9607(a). In particular,

(1) Respondent was the “owner” and/or “operator” of the facility at the time of disposal of hazardous substances at the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).

(2) Respondent arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment of hazardous substances at the facility, within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).

d. The contamination, including, but not limited to PCBs, cPAHs, metals, TBT and dioxins/furans found at the Site, as identified in the Findings of Fact above, includes a “hazardous substance” as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

e. The conditions described in the Findings of Fact above constitute an actual and/or threatened "release" of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The conditions at the Site may constitute a threat to public health or welfare or the environment, based on the factors set forth in the ROD and ESD. These factors include, but are not limited to, the following: carcinogenic risks and noncarcinogenic hazards with respect to (1) adult seafood consumption, with particular concern for Tribe members; (2) childhood seafood consumption, with particular concern for Tribe members; (3) clamming; (4) beach play; and (5) netfishing.

g. Solely for the purposes of Section 113(j) of CERCLA, 42 U.S.C. § 9613(j), the remedy set forth in the ROD and ESD and the Work to be performed by Respondent shall constitute a response action taken or ordered by the President for which judicial review shall be limited to the administrative record.

h. The conditions at the Site may constitute an imminent and substantial endangerment to public health or welfare or the environment.

i. The actions required by this Order are necessary to protect the public health, welfare, or the environment, and if carried out in compliance with the terms of this Order will be consistent with the NCP, as provided in Section 300.700(c)(3)(ii).

VI. ORDER

22. Based on the foregoing Findings of Fact, Conclusions of Law and Determinations, and the administrative record, Respondent is hereby ordered to comply with all the provisions of this Order and any modifications hereto, including all appendices to this Order and all documents incorporated by reference into this Order.

VII. NOTICE OF INTENT TO COMPLY

23. On or before the Effective Date, Respondent shall notify EPA in writing of its irrevocable intent to comply with this Order. Such written notice shall be sent to:

Caroline Philson
Office of Regional Counsel
U. S. EPA, Region 10
Suite 900, M/S ORC-158
1200 Sixth Ave
Seattle, WA 98101
(206) 553-8575

Respondent's written notice shall describe, using facts that exist on or prior to the Effective Date, any "sufficient cause" defense[s] asserted by Respondent under Sections 106(b) and 107(c)(3) of CERCLA, 42 U.S.C. §§ 9606(a) and 9607(c)(3). The absence of a response by EPA to the notice required by this Paragraph shall not be deemed to be acceptance of Respondent's

assertions. Failure of Respondent to provide such notification within this time period shall, as of the Effective Date, be treated as a violation of this Order by Respondent.

VIII. COMPLIANCE WITH OTHER LAWS

24. Nothing in this Order limits Respondent's obligations to comply with the requirements of all applicable federal and state laws and regulations. Respondent must also comply with all applicable or relevant and appropriate requirements of all federal and state environmental laws as set forth in the ROD, the ESD and the SOW. Except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and Section 300.400(e) of the NCP, no permit shall be required for any portion of the Work conducted entirely on-site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Work). Where any portion of the Work that is not on-site requires a federal or state permit or approval, Respondent shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. This Order is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

IX. DESIGNATION OF CONTRACTORS AND PROJECT COORDINATORS

25. Selection of Supervising Contractor.

a. All Work performed by Respondent pursuant to the Order shall be under the direction and supervision of the Supervising Contractor, the selection of which shall be subject to disapproval by EPA. Within 10 days after the Effective Date, Respondent shall notify EPA in writing of the name, title, and qualifications of any contractor proposed to be the Supervising Contractor. Respondent's Supervising Contractor must have a quality assurance system that complies with ANSI/ASQ E4-2004, "Quality Systems for Environmental Data and Technology Programs: Requirements with Guidance for Use" (American Society for Quality (August 2004), or most recent version). EPA will issue a notice of disapproval or an authorization to proceed regarding hiring of the proposed contractor. If at any time thereafter, Respondent proposes to change a Supervising Contractor, Respondent shall give such notice to EPA and must obtain an authorization to proceed from EPA before the new Supervising Contractor performs, directs, or supervises any Work under this Order.

b. If EPA disapproves a proposed Supervising Contractor, EPA will notify Respondent in writing. Respondent shall submit to EPA a list of contractors, including the qualifications of each contractor that would be acceptable to them within 30 days after receipt of EPA's disapproval of the contractor previously proposed. EPA will provide written notice of the names of any contractor(s) that it disapproves and an authorization to proceed with respect to any of the other contractors. Respondent may select any contractor from that list that is not disapproved and shall notify EPA of the name of the contractor selected within 21 days after EPA's authorization to proceed.

26. Within 30 days after the Effective Date, Respondent shall designate a Project Coordinator and an Alternative Project Coordinator who shall be responsible for administration

of the Work required by this Order and shall submit in writing to EPA the designated Project Coordinator's name, address, telephone number, email address, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during the Work. Respondent's Project Coordinator shall be subject to disapproval by EPA and shall have the technical expertise sufficient to adequately oversee all aspects of the Work. Respondent's Project Coordinator shall not be an attorney for Respondent in this matter. He or she may assign other representatives, including other contractors, to serve as a Site representative for oversight of performance of daily operations during remedial activities.

27. EPA has designated Piper Peterson as the Remedial Project Manager, and Shawn Blocker as its Alternative Project Coordinator. EPA will notify Respondent of a change of its designated Project Coordinator. Except as otherwise provided in this Order, Respondent shall direct all submissions required by this Order to the EPA Project Coordinator at U.S. EPA Region 10, M/S ECL-122 1200 Sixth Avenue, Suite 900, Seattle, WA 98101. Communications between Respondent and EPA, and all documents concerning the activities performed pursuant to this Order, shall be directed to the Parties' respective Project Coordinator. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by Respondent.

28. EPA's Project Coordinator and Alternate Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager (RPM) and an On-Scene Coordinator (OSC) by the NCP, 40 C.F.R. Part 300. EPA's Project Coordinator or Alternate Project Coordinator shall have authority, consistent with the NCP, to halt any Work required by this Order and to take or direct any necessary response action when he or she determines that conditions at the Site constitute an emergency situation or may present a threat to public health or welfare or the environment.

29. EPA's Project Coordinator and Respondent's Project Coordinator will meet, at a minimum, on a monthly basis. Meetings via telephone shall be acceptable.

X. WORK TO BE PERFORMED

30. Remedial Design.

a. Within 60 days after EPA's issuance of an authorization to proceed pursuant to Paragraph 25 (Selection of Supervising Contractor), Respondent shall submit to EPA and the State and Tribes a work plan for the design of the Remedial Action at the Site (Remedial Design Work Plan). The Remedial Design Work Plan shall provide for design of the remedy set forth in the ROD and ESD, in accordance with the SOW and for achievement of the Performance Standards and other requirements set forth in the ROD, ESD, this Order, and/or the SOW. Upon its approval by EPA, the Remedial Design Work Plan shall be incorporated into and enforceable under this Order. Within 60 days after EPA's issuance of an authorization to proceed under Paragraph 25, Respondent shall submit to EPA a Health and Safety Plan for field design activities that conforms to the applicable Occupational Safety and Health Administration and EPA requirements including, but not limited to, 29 C.F.R. § 1910.120.

b. The Remedial Design Work Plan shall include plans and schedules for implementation of all remedial design and pre-design tasks identified in the SOW, including, but not limited to, plans and schedules for the completion of: (1) design sampling and analysis plan (including, but not limited to, a Remedial Design Quality Assurance Project Plan in accordance with Section XII (Quality Assurance, Sampling and Data Analysis)); (2) a Construction Quality Assurance Plan ("CQAP"); (3) an Institutional Control Implementation and Assurance Plan ("ICIAP"); (4) a preliminary design submission; (5) and intermediate design submission; and (6) a pre-final/final design submission. In addition, the Remedial Design Work Plan shall include a schedule for completion of the Remedial Action Work Plan. The Remedial Design Work Plan shall also include plans and schedules for implementation all remedial design and pre-design tasks identified in the SOW, including, but not limited to, plans and schedules for the completion of: (1) Dredging the former shipway area (westernmost portion of the Site) to remove sediments with contaminant of concern (COC)¹ concentrations above the sediment quality standards (SQS), then placing a thin layer (6 to 9 inches) of clean material to cover dredge residuals and promote enhanced natural recovery (ENR); (2) Dredging the Navigation Channel in the West Waterway to remove sediments with COC concentrations that exceed the SQS, and placing a thin layer of clean material to cover dredge residuals and promote ENR; (3) Dredging the former Dry Docks 1 through 3 area and other localized areas throughout the Site to remove sediments with COC concentrations above the cleanup screening levels (CSLs), then placing a thin layer of clean material to cover dredge residuals and promote ENR; (4) Placing a thin layer of clean material to promote ENR over the remainder of the subtidal area; (5) Dredging the shoreline bank and intertidal zone (defined as areas extending from plus [+] 11.3 feet MHHW to minus [-] 10 feet MLLW) to remove sediments with COCs at levels above the SQS, as structurally practicable, and backfilling with clean material to grade; (6) Removing debris, riprap, failing wooden bulkheads, and pilings as necessary or directed by the EPA, and dispose of them offsite; (7) Disposing of dredged sediments and other related remediation materials by truck or rail transport to an appropriate offsite upland facility permitted to accept these materials; (8) Placing institutional controls (ICs) in the form of proprietary control that runs with the property for management of any residual contamination that is disturbed or encountered in the event of future excavation or dredging within the boundaries of the Site.²

c. Upon approval of the Remedial Design Work Plan by EPA, and submission of the Final Health and Safety Plan for all field activities to EPA, Respondent shall implement the Remedial Design Work Plan. Respondent shall submit to EPA, the State and the Tribes all

¹ A technical impracticability (TI) waiver of the Federal ambient water quality criteria (AWQC) for arsenic is part of the Selected Remedy. As described in the TI waiver rationale memorandum (EPA, 2013), it is technically impracticable for remediation of contaminated sediments at this small 40-acre Site to measurably improve the overall water quality for arsenic within the larger Elliott Bay. Further, there are no treatment technologies capable of surface water treatment for arsenic at the scale of Elliott Bay (approximately 5.42×10^{11} gallons, assuming no replenishment from Puget Sound). It is expected that arsenic concentrations in Elliott Bay would remain the same after Site cleanup. All Site-related arsenic sources are or will be controlled after sediment remediation. The TI waiver applies only to AWQC exceedances at the Site and would not prevent the EPA or other regulatory agencies from taking actions related to AWQC exceedances.

² Note that the current Puget Sound Fish Consumption Advisory established by the Washington State Department of Health for Recreational Marine Area 10 (Elliott Bay) to reduce human exposure from ingestion of contaminated seafood will continue to be posted at the Site. The EPA can revise the fish advisory as warranted.

plans, reports, and other deliverables required under the approved Remedial Design Work Plan in accordance with the approved schedule for review and approval pursuant to Section XVII (EPA Approval of Plans, Reports, and Other Deliverables). Unless otherwise directed by EPA, Respondent shall not commence further Remedial Design activities at the Site prior to approval of the Remedial Design Work Plan.

d. The preliminary design submission shall include, at a minimum, the following: (1) design criteria; (2) results of additional field sampling and pre-design work, if available; (3) project delivery strategy; (4) preliminary plans, drawings, and sketches; (5) required specifications in outline form; and (6) preliminary construction schedule.

e. The intermediate design submission, if required by EPA or if independently submitted by Respondent, shall be a continuation and expansion of the preliminary design.

f. The pre-final/final design submission shall include, at a minimum, the following: (1) Final plans and specifications; (2) LTMMMP; (3) Draft CQAP; (4) Draft QAPP/HSP/FSP for remedial action construction activities (directed at measuring progress towards meeting Performance Standards); (5) Draft Contingency Plan; (6) Draft Water Quality Monitoring Plan; (7) Draft Permitting and Site Access Plan; (8) Site Management Plan, which includes (i) a Pollution Control and Mitigation Plan, (ii) Transportation and Disposal Plan (Waste Management Plan), and (iii) Green/Sustainable Remediation and Climate Change Adaptation Site Plans; (9) ICIAP; (10) Section 7 ESA Biological Assessment; (11) Capital and Operation and Maintenance Cost Estimate; (12) Final project schedule for the construction and implementation of the Remedial Action (including specific dates for major milestones and completion of the project); and (13) any additional final plans identified in the Remedial Design Work Plan. The CQAP, which shall detail the approach to quality assurance during construction activities at the Site, shall specify a quality assurance official, independent of the Supervising Contractor, to conduct a quality assurance program during the construction phase of the project.

31. Remedial Action.

a. Within 45 days after the approval of the final design submission, Respondent shall submit to EPA, the State and the Tribes a work plan for the performance of the Remedial Action at the Site (Remedial Action Work Plan). The Remedial Action Work Plan shall provide for construction and implementation of the remedy set forth in the ROD and ESD and achievement of the Performance Standards, in accordance with this Order, the ROD, the ESD, the SOW, and the design plans and specifications developed in accordance with the Remedial Design Work Plan and approved by EPA. Upon its approval by EPA, the Remedial Action Work Plan shall be incorporated into and enforceable under this Order. At the same time as it submits the Remedial Action Work Plan, Respondent shall submit to EPA a Health and Safety Plan for field activities required by the Remedial Action Work Plan that conforms to the applicable Occupational Safety and Health Administration and EPA requirements including, but not limited to, 29 C.F.R. § 1910.120.

b. The Remedial Action Work Plan shall include plans and schedules for implementation of all remedial action tasks identified in the SOW, including but not limited to

plans and schedules for the construction or implementation of the following: (1) Removal of debris, riprap, failing wooden bulkheads, and pilings, as necessary, followed by proper offsite disposal; (2) Removal of contaminated sediment by dredging the former shipway area, navigation channel, drydocks 1, 2 and 3, shoreline bank, and intertidal zone; (3) Use of truck or rail transport to dispose of dredged sediments and other related remediation materials in an appropriate offsite upland facility permitted to accept these materials; (4) Covering dredged residuals and promoting enhanced natural recovery (ENR) by placing a thin layer of clean material on previously dredged areas; (5) Placing institutional controls (ICs) on the property; and (6) Conducting long term maintenance and monitoring pursuant to a LTMMMP.

c. Upon approval of the Remedial Action Work Plan by EPA, Respondent shall implement the activities required under the Remedial Action Work Plan. Respondent shall submit to EPA, the State, and the Tribes all reports and other deliverables required under the approved Remedial Action Work Plan in accordance with the approved schedule for review and approval pursuant to Section XVII (EPA Approval of Plans, Reports, and Other Deliverables). Unless otherwise directed by EPA, Respondent shall not commence physical Remedial Action activities at the Site prior to approval of the Remedial Action Work Plan.

d. Respondent shall continue to implement the Remedial Action until the Performance Standards are achieved. Respondent shall implement post-completion LTMMMP for so long thereafter as is required by this Order.

32. Modification of SOW or Related Work Plans.

a. If EPA determines that it is necessary to modify the work specified in the SOW and/or in work plans developed pursuant to the SOW to achieve and maintain the Performance Standards or to carry out and maintain the effectiveness of the remedy set forth in the ROD and ESD, then EPA may issue such modification and notify Respondent of such modification. For the purposes of this Paragraph and Paragraphs 65 (Completion of the Remedial Action) and 66 (Completion of the Work) only, the "scope of the remedy set forth in the ROD and ESD" is: (1) Dredging the former shipway area (westernmost portion of the Site) to remove sediments with contaminant of concern (COC) concentrations above the sediment quality standards (SQS), then placing a thin layer (6 to 9 inches) of clean material to cover dredge residuals and promote enhanced natural recovery (ENR); (2) Dredging the Navigation Channel in the West Waterway to remove sediments with COC concentrations that exceed the SQS, and placing a thin layer of clean material to cover dredge residuals and promote ENR; (3) Dredging the former Dry Docks 1 through 3 area and other localized areas throughout the Site to remove sediments with COC concentrations above the cleanup screening levels (CSLs), then placing a thin layer of clean material to cover dredge residuals and promote ENR; (4) Placing a thin layer of clean material to promote ENR over the remainder of the subtidal area; (5) Dredging the shoreline bank and intertidal zone (defined as areas extending from plus [+] 11.3 feet MHHW to minus [-] 10 feet MLLW) to remove sediments with COCs at levels above the SQS, as structurally practicable, and backfilling with clean material to grade; (6) Removing debris, riprap, failing wooden bulkheads, and pilings as necessary or directed by the EPA, and dispose of them offsite; (7) Disposing of dredged sediments and other related remediation materials by truck or rail transport to an appropriate offsite upland facility permitted to accept these materials; (8) Placing Institutional Controls (ICs) in the form of proprietary control that

runs with the property for management of any residual contamination that is disturbed or encountered in the event of future excavation or dredging within the boundaries of the Site; (9) Conducting post-remedial confirmation sampling of sediment and surface water; and (10) Conducting long-term monitoring at the Site as defined in the Long-term Monitoring and Maintenance Plan (LTMMP).³

b. Respondent shall modify the SOW and/or related work plans in accordance with the modification issued by EPA. The modification shall be incorporated into and enforceable under this Order, and Respondent shall implement all work required by such modification. Respondent shall incorporate the modification into the Remedial Design or Remedial Action Work Plan under Paragraph 30 (Remedial Design) or Paragraph 31 (Remedial Action), as appropriate.

33. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions as otherwise provided in this Order.

34. Nothing in this Order, the SOW, or the Remedial Design or Remedial Action Work Plans constitutes a warranty or representation of any kind by EPA that compliance with the work requirements set forth in the SOW and the Work Plans will achieve the Performance Standards.

35. Off-Site Shipments.

a. Respondent may ship hazardous substances, pollutants, and contaminants from the Site to an off-Site facility only if it complies with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondent must notify and receive approval from EPA, as well as the facility itself prior to shipment. Such approval shall be valid for shipments made within 60 days. Respondent will be deemed to be in compliance with CERCLA Section 121(d)(3) and 40 C.F.R. § 300.440 regarding a shipment if Respondent obtains a prior determination from EPA that the proposed receiving facility for such shipment is acceptable under the criteria of 40 C.F.R. § 300.440(b). Respondent may ship Investigation Derived Waste (IDW) from the Site to an off-Site facility only if Respondent complies with EPA's *Guide to Management of Investigation Derived Waste*, OSWER 9345.3-03FS (Jan. 1992).

b. Respondent may ship Waste Material from the Site to an out-of-state waste management facility only if, prior to any shipment, it provides notice to the appropriate state environmental official in the receiving facility's state and to the EPA Project Coordinator. This notice requirement will not apply to any off-Site shipments when the total quantity of all such shipments will not exceed ten cubic yards. The notice must include the following information, if available: (1) the name and location of the receiving facility; (2) the type and quantity of Waste Material to be shipped; (3) the schedule for the shipment; and (4) the method of transportation. Respondent also shall notify the state environmental official referenced above and the EPA Project Coordinator of any major changes in the shipment plan, such as a decision

³ The LTMMP will also define additional monitoring as necessary following identified triggering weather and seismic events. If such events occur, bathymetric monitoring will be implemented to determine whether one or more components of the Selected Remedy are affected.

to ship the Waste Material to a different out-of-state facility. Respondent shall provide the notice after the award of the contract for Remedial Action construction and before the Waste Material is shipped.

XI. REMEDY REVIEW

36. Periodic Review. Respondent shall conduct any studies and investigations that EPA requests in order to permit EPA to conduct reviews of whether the Remedial Action is protective of human health and the environment at least every five years as required by Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), and any applicable regulations.

37. EPA Selection of Further Response Actions. If EPA determines, at any time, that the Remedial Action is not protective of human health and the environment, EPA may select further response actions for the Site in accordance with the requirements of CERCLA and the NCP.

XII. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS

38. Quality Assurance.

a. Respondent shall use quality assurance, quality control, and other technical activities and chain of custody procedures for all treatability, design, compliance, and monitoring samples consistent with *EPA Requirements for Quality Assurance Project Plans*, QA/R5, EPA/240/B-01/003 (March 2001, reissued May 2006); *Guidance for Quality Assurance Project Plans*, QA/G-5, EPA/240/R-02/009 (December 2002); *Uniform Federal Policy for Quality Assurance Project Plans*, Parts 1-3, EPA/505/B-04/900A-900C, March 2005, and subsequent amendments to such guidelines upon notification by EPA to Respondent of such amendment. Amended guidelines shall apply only to procedures conducted after such notification.

b. Prior to the commencement of any monitoring project under this Order, Respondent shall submit to EPA for approval, after a reasonable opportunity for review and comment by the State and Tribes, a Quality Assurance Project Plan (QAPP) that is consistent with the SOW, the NCP, and applicable guidance documents. Respondent shall ensure that EPA personnel and their authorized representatives are allowed access at reasonable times to all laboratories utilized by Respondent pursuant to this Order. In addition, Respondent shall ensure that such laboratories shall analyze all samples submitted by EPA pursuant to the QAPP for quality assurance, quality control, and technical activities that will satisfy the stated performance criteria as specified in the QAPP. Respondent shall ensure that the laboratories it utilizes for the analysis of samples taken pursuant to this Order perform all analyses using EPA-accepted methods (i.e., the methods documented in *USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis*, ILMO5.4 (Dec. 2006), *USEPA Contract Laboratory Program Statement of Work for Organic Analysis*, SOM01.2 (amended April 2007), and *USEPA Contract Laboratory Program Statement of Work for Inorganic Superfund Methods (Multi-Media, Multi-Concentration)*, ISM01.2 (Jan. 2010)), or other methods acceptable to EPA. However, upon approval by EPA, Respondent may use other appropriate analytical methods, as long as: (a) quality assurance/quality control (QA/QC) criteria are contained in the methods and the methods

are included in the QAPP, (b) the analytical methods are at least as stringent as the methods listed above, and (c) the methods have been approved for use by a nationally recognized organization responsible for verification and publication of analytical methods, e.g., EPA, ASTM, NIOSH, OSHA, etc. Respondent shall ensure that all laboratories it uses for analysis of samples taken pursuant to this Order have a documented Quality System that complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs" (American National Standard, January 5, 1995), and "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001, reissued May 2006), or equivalent documentation as determined by EPA. EPA may consider Environmental Response Laboratory Network (ERLN) laboratories, laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP), or laboratories that meet International Standardization Organization (ISO 17025) standards or other nationally recognized programs (<http://www.epa.gov/fem/accredit.htm>) as meeting the Quality System requirements. Respondent shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Order are conducted in accordance with the procedures set forth in the QAPP approved by EPA.

39. Upon request, Respondent shall provide split or duplicate samples to EPA or its authorized representatives. Respondent shall notify EPA not less than 28 days in advance of any sample collection activity unless shorter notice is agreed to by EPA. In addition, EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall provide to Respondent split or duplicate samples of any samples it takes as part of EPA's oversight of Respondent's implementation of the Work.

40. Respondent shall submit to EPA 1 paper copy and 1 electronic copy of the results of all sampling and/or tests or other data obtained or generated by or on behalf of Respondent with respect to the Site and/or the implementation of this Order unless EPA agrees otherwise. Respondent shall also submit 1 electronic copy to the State and each of the Tribes.

41. Notwithstanding any provision of this Order, the United States retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XIII. ACCESS AND INSTITUTIONAL CONTROLS

42. If the Site, or any other real property where access and/or land, water, or other resource use restrictions are needed, is owned or controlled by persons other than Respondent:

a. Respondent shall use its best efforts to secure from such persons:

(1) In accordance with the schedule set forth in the ICIAP, or as otherwise specified in writing by the EPA Project Coordinator, all necessary access agreements. Any such access agreement shall provide access at all reasonable times for EPA and Respondent and their representatives, contractors, and subcontractors for the purpose of conducting and activity related to this Order. Respondent shall immediately notify EPA if after using its best efforts it is unable to obtain such agreements.

(2) In accordance with the schedule set forth in the ICIAP, an agreement, enforceable by Respondent and the United States, to refrain from using the Site, or such other real property, in any manner that EPA determines will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material or interfere with or adversely affect the implementation, integrity, or protectiveness of the Work.

(3) In accordance with the schedule set forth in the ICIAP, the execution and recordation in the appropriate land records office of Proprietary Controls, that: (i) grant a right of access to conduct any activity regarding the Order including, but not limited to, those activities listed in Paragraph 42.b; and (ii) grant the right to enforce the land, water, or other resource use restrictions, including, but not limited to, the specific restrictions listed in Paragraph 42.c. The Proprietary Controls shall be granted to one or more of the following persons, as determined by EPA: (i) the United States, on behalf of EPA, and its representatives; (ii) the State and its representatives; and (iii) other appropriate grantees. The Proprietary Controls, other than those granted to the United States, shall include a designation that EPA (and/or the State as appropriate) is a third-party beneficiary, allowing EPA to maintain the right to enforce the Proprietary Controls without acquiring an interest in real property.

b. Access Requirements. The following is a list of activities for which access is required regarding such other real property:

- (1) Monitoring the Work;
- (2) Verifying any data or information submitted to the United States, or the State, or the Suquamish Tribe or the Muckleshoot Indian Tribe;
- (3) Conducting investigations regarding contamination at or near the Site;
- (4) Obtaining samples;
- (5) Assessing the need for, planning, or implementing additional response actions at or near the Site;
- (6) Assessing implementation of quality assurance and quality control practices as defined in the approved CQAP as provided in the SOW;
- (7) Implementing the Work pursuant to the conditions set forth in Section XXII (Enforcement/Work Takeover);
- (8) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Respondent or its agents, consistent with Section XIV (Access to Information);
- (9) Assessing Respondent's compliance with the Order;

- (10) Determining whether the Site or other real property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted under the Order; and
- (11) Implementing, monitoring, maintaining, reporting on, and enforcing any Institutional Control and the requirements of the ICIAP.

c. Land, Water, or Other Resource Use Restrictions. The Respondent shall ensure that any new structures on the Site will be constructed in a manner which does not interfere with the RA.

d. Within 15 days after EPA's approval and acceptance of the Proprietary Controls plan, Respondent shall use best efforts to secure from the Site owner(s) any access necessary to implement all Proprietary Controls.

43. For purposes of Paragraph 42, "best efforts" shall include the payment of reasonable sums of money to obtain access, any necessary agreements to restrict land, water, or other resource use, Proprietary Controls, and/or an agreement to release or subordinate a prior lien or encumbrance. If, within 60 days after EPA's approval of the ICIAP, Respondent has not: (a) obtained any necessary agreements to provide access, restrict land, water, or other resource use, or record Proprietary Controls, as required by this Section; or (b) obtained, as necessary, agreements from the holders of prior liens or encumbrances to release or subordinate any liens or encumbrances related to implementation of Proprietary Controls, Respondent shall promptly notify EPA in writing, and shall include in that notification a summary of the steps that Respondent has taken, including the dates, thereof, to attempt to comply with Paragraph 42. EPA may then, as it deems appropriate, assist Respondent in obtaining access, agreements to restrict land, water, or other resource use, Proprietary Controls, or the release or subordination of a prior lien or encumbrance. EPA reserves the right to seek payment from Respondent for all costs, including cost of attorneys' time, incurred by the United States in obtaining such access, agreements to allow access and restrict land, water, or other resource use (and costs incurred to obtain compliance with such agreement), Proprietary Controls, and/or the release or subordination of prior liens or encumbrances.

44. Respondent may request a waiver of the requirements under Paragraph 42. Such waiver request shall include: (a) description and copies of such liens and encumbrances (including maps showing areas affected by such liens and encumbrances); (b) a demonstration and certification that such liens and encumbrances will not interfere with the remedy or result in undue exposure to Waste Material; (c) copies of request for subordination agreements regarding such liens and encumbrances; and (d) copies of any responses to, and/or denials of such requests. EPA may grant the waiver for any reason, including, but not limited to, the failure to obtain such release or subordination despite best efforts. In that event, the deadline for providing evidence of title regarding the property will be 15 days after EPA's approval of the waiver.

45. If EPA determines in a record of decision that Institutional Controls in the form of State or local laws, regulations, ordinances, zoning restrictions, or other governmental controls are needed at or in connection with the Site in order to help ensure protectiveness of human

health and the environment, Respondent shall cooperate with EPA's efforts to secure and ensure compliance with such governmental controls.

46. Notwithstanding any provision of this Order, EPA retains all of its access authorities and rights, as well as all of its rights to require Institutional Controls, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XIV. ACCESS TO INFORMATION

47. Respondent shall provide to EPA, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as "Records") within Respondent's possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the Work. Respondent shall also make available to EPA, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

48. Privileged and Protected Claims.

- a. Respondent may assert that all or part of a Record requested by EPA is privileged or protected as provided under federal law, in lieu of providing the Record, provided Respondent complies with Paragraph 48.b, and except as provided in Paragraph 48.c.
- b. If Respondent asserts a claim of privilege or protection, it shall provide EPA with the following information regarding such Record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each recipient; a description of the Record's contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a Record, Respondent shall provide the Record to EPA in redacted form to mask the privileged or protected portion only. Respondent shall retain all Records that it claims to be privileged or protected until EPA has had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in the Respondent's favor.
- c. Respondent may make no claim of privilege or protection regarding: (1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological, or engineering data, or the portion of any other Record that evidences conditions at or around the Site; or (2) the portion of any Record that Respondent is required to create or generate pursuant to this Order.

49. Business Confidential Claims. Respondent may assert that all or part of a Record provided to EPA under this Section or Section XV (Retention of Records) is business

confidential to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Respondent shall segregate and clearly identify all Records or parts thereof submitted under this Order for which Respondent asserts business confidentiality claims. Records submitted to EPA determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA, or if EPA has notified Respondent that the Records are not confidential under the standards of CERCLA Section 104(e)(7) or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to Respondent.

50. Notwithstanding any provision of this Order, EPA retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XV. RETENTION OF RECORDS

51. During the pendency of this Order and for a minimum of 10 years after EPA provides notice of completion of the Work under Paragraph 66 of this Order, Respondent shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to its liability under CERCLA with respect to the Site, provided, however, that if Respondent is potentially liable as owner or operator of the Site it must retain, in addition, all Records that relate to the liability of any other person under CERCLA with respect to the Site. Respondent must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above, all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to the performance of the Work, provided, however, that Respondent (and its contractor and agents) must retain, in addition, copies of all data generated during performance of the Work and not contained in the aforementioned Records to be retained. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

52. At the conclusion of this document retention period, Respondent shall notify EPA at least 90 days prior to the destruction of any such Records, and, upon request by EPA, and except as provided in Paragraph 48, Respondent shall deliver any such Records to EPA.

53. Within 30 days after the Effective Date, Respondent shall submit a written certification to EPA's Project Coordinator that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any Records (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by the United States or the State and that it has fully complied with any and all EPA requests for information regarding the Site pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927, and State law. If Respondent is unable to so certify, it shall submit a modified certification that explains in detail why it is unable to certify in full with regard to all Records.

- (2) previous submission(s) have been disapproved due to material defects.

61. Resubmissions. Upon receipt of a notice of disapproval under Paragraph 60.a(3) or 60.a(4), or if required by a notice of approval upon specified conditions under Paragraph 60.a(2), Respondent shall, within 30 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other deliverable for approval. After review of the resubmitted plan, report, or other deliverable, EPA may:

- a. approve, in whole or in part, the resubmission;
- b. approve the resubmission upon specified conditions;
- c. modify the resubmission;
- d. disapprove, in whole or in part, the resubmission, requiring Respondent to correct the deficiencies; or
- e. any combination of the foregoing.

62. Material Defects. If an initially submitted or resubmitted plan, report, or other deliverable contains a material defect, and the plan, report, or other deliverable is disapproved or modified by EPA under Paragraph 60.b(2) or 61 due to such material defect, then the material defect shall constitute a violation of this Order and may subject Respondent to penalties in accordance with Section XXII (Enforcement/Work Takeover).

63. Implementation. Upon approval, approval upon conditions, or modification by EPA under Paragraph 60 (Initial Submissions) or Paragraph 61 (Resubmissions), of any plan, report, or other deliverable, or any portion thereof:

- a. such plan, report, or other deliverable, or portion thereof, shall be incorporated into and enforceable under this Order; and
- b. Respondent shall take any action required by such plan, report, or other deliverable, or portion thereof with respect to the modifications or conditions made by EPA. The implementation of any non-deficient portion of a plan, report, or other deliverable submitted or resubmitted under Paragraph 60 or 61 shall not relieve Respondent of any penalties for violations under Section XXII (Enforcement/Work Takeover).

XVIII. INSURANCE

64. Not later than 15 days before commencing any Work on-site under this Order, Respondent shall secure, and shall maintain until the first anniversary after the Notice of Completion of the Remedial Action pursuant to Paragraph 65.b, commercial general liability insurance with limits of 10 million dollars, for any one occurrence, and automobile liability insurance with limits of 5 million dollars, combined single limit, naming the United States as additional insured with respect to all liability arising out of the activities performed by or on behalf of Respondent pursuant to this Order. In addition, for the duration of the Order,

Respondent shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing Work on behalf of Respondent in furtherance of this Order. Within the same time period, Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondent shall submit such certificate and copies of policies each year on the anniversary of the Effective Date. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then, with respect to that contractor or subcontractor, Respondent needs provide only that portion of the insurance described above that is not maintained by the contractor or subcontractor.

XIX. NOTICE OF COMPLETION

65. Completion of the Remedial Action.

a. Within 30 days after Respondent concludes that the Remedial Action has been fully performed, Respondent shall schedule and conduct an inspection to be attended by Respondent and EPA, with notice also given to the State and the Tribes. If, after the pre-notice inspection, Respondent still believes that the Remedial Action has been fully performed, it shall submit a written report requesting issuance of Notice of Completion of the Remedial Action to EPA for approval, pursuant to Section XVII (EPA Approval of Plans, Reports, and Other Deliverables), within 30 days after the inspection. In the report, a registered professional engineer and Respondent's Project Coordinator shall state that the Remedial Action has been completed in full satisfaction of the requirements of this Order. The written report shall include as-built drawings signed and stamped by a professional engineer. The report shall contain the following statement, signed by a responsible corporate official of Respondent or Respondent's Project Coordinator:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If, after completion of the pre-notice inspection and receipt and review of the written report, EPA determines that the Remedial Action or any portion thereof has not been completed in accordance with this Order, EPA will notify Respondent in writing of the activities that must be undertaken by Respondent pursuant to this Order to complete the Remedial Action. EPA will set forth in the notice a schedule for performance of such activities consistent with the Order and the SOW or require Respondent to submit a schedule to EPA for approval pursuant to Section XVII (EPA Approval of Plans, Reports, and Other Deliverables). Respondent shall perform all activities described in the notice in accordance with the specifications and schedules established pursuant to this Paragraph.

b. If EPA concludes, based on the initial or any subsequent report requesting Notice of Completion of the Remedial Action that the Remedial Action has been performed in accordance with this Order, EPA will issue the Notice of Completion of the Remedial Action. Issuance of Notice of Completion of the Remedial Action will not affect Respondent's remaining obligations under this Order. EPA's notification shall be based on present knowledge and Respondent's certification to EPA, and shall not limit EPA's right to perform periodic reviews pursuant to Section 121(c) of CERCLA, 42 U.S.C §9621(c), or to take or require an action that in the judgment of EPA is appropriate at the Site, in accordance with Sections 104, 106, or 107 of CERCLA, 42 U.S.C §§ 9604, 9606, or 9607.

66. Completion of the Work.

a. Within 90 days after Respondent concludes that all phases of the Work, other than any remaining activities required under Section XI (Remedy Review), have been fully performed, Respondent shall schedule and conduct a pre-notice inspection to be attended by Respondent and EPA. If, after the pre-notice inspection, Respondent still believes that the Work has been fully performed, Respondent shall submit a written report by a registered professional engineer stating that the Work has been completed in full satisfaction of the requirements of this Order. The report shall contain the statement set forth in Paragraph 65, signed by a responsible corporate official of a Respondent or Respondent's Project Coordinator. If, after review of the written report, EPA determines that any portion of the Work has not been completed in accordance with this Order, EPA will notify Respondent in writing of the activities that must be undertaken by Respondent pursuant to this Order to complete the Work. EPA will set forth in the notice a schedule for performance of such activities consistent with the Order and the SOW or require Respondent to submit a schedule to EPA for approval pursuant to Section XVII (EPA Approval of Plans, Reports, and Other Deliverables). Respondent shall perform all activities described in the notice in accordance with the specifications and schedules established therein.

b. If EPA concludes, based on the initial or any subsequent report requesting Notice of Completion of the Work, that the Work is complete, EPA shall so certify in writing to the Respondent. EPA's Notice of Completion of the Work does not affect the following continuing obligations: (i) activities under Section XI (Remedy Review); (ii) obligations under Sections XIII (Access and Institutional Controls), XV (Retention of Records), and XIV (Access to Information) under this Order; (iii) maintenance of Institutional Controls as provided in the ICIAP; and (v) reimbursement of Response Costs.

XX. EMERGENCY RESPONSE AND RELEASE REPORTING

67. Emergency Response and Reporting. If any event occurs during performance of the Work that causes or threatens to cause a release of any Waste Material from the Site and that either constitutes an emergency situation or that may present an immediate threat to public health or welfare or the environment, Respondent shall: (a) immediately take all appropriate action to prevent, abate, or minimize such release or threat of release; (b) immediately notify the authorized EPA official orally; and (c) take such action in consultation with the authorized EPA officer and in accordance with all applicable provisions of the Health and Safety Plans, the Emergency Response Plan, and any other submittal approved by EPA under the SOW. In the

event that Respondent fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, EPA reserves the right to pursue cost recovery.

68. Release Reporting. Upon the occurrence of any event during performance of the Work that Respondent is required to report pursuant to Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Action (EPCRA), 42 U.S.C. § 11004, Respondent shall immediately notify the authorized EPA officer orally.

69. The “authorized EPA officer” for purposes of immediate oral notification and consultations under Paragraphs 67 and 68 is the EPA Project Coordinator, the EPA Alternative Project Coordinator (if the EPA Project Coordinator is unavailable), or the EPA Emergency Response Unit, Region 10 if neither Project Coordinator is available.

70. For any event covered by Paragraph 67 and 68, Respondent shall: (a) within seven days after the onset of such event, submit a written report to EPA describing the actions or events that occurred and the measures taken, and to be taken, in response thereto; and (b) within 30 days after the conclusion of such event, submit a report to EPA describing all actions taken in response to such event. The reporting requirement under this Section (XX. Emergency Response and Release Reporting) are in addition to the reporting required under CERCLA Section 103 or EPCRA Section 304.

XXI. PAYMENT OF RESPONSE COSTS

71. Upon EPA’s written demand, Respondent shall pay EPA all Response Costs incurred or to be incurred in connection with this Order. On a periodic basis, EPA will send Respondent a bill requiring payment of all Response Costs incurred by the United States with respect to this Order that includes a SCORPIOS Cost Summary reflecting direct and indirect costs incurred by EPA, its contractors, and the Department of Justice.

72. Respondent shall make all payments within 30 days after receipt of each written demand requiring payment. Payment shall be made to EPA by Fedwire Electronic Funds Transfer (EFT) to:

Federal Reserve Bank of New York

ABA = 021030004

Account = 68010727

SWIFT address = FRNYUS33

33 Liberty Street

New York NY 10045

Field Tag 4200 of the Fedwire message should read “D 68010727 Environmental Protection Agency”

and shall reference Site/Spill ID Number 10MA and the EPA docket number for this action.

73. At the time of payment, Respondent shall send notice that payment has been made to Piper Peterson, RPM at U.S. EPA Region 10, M/S ECL-122 1200 Sixth Avenue, and to the EPA Cincinnati Finance Office by email at cinwd_acctsreceivable@epa.gov or by mail to

EPA Cincinnati Finance Office
26 W. Martin Luther King Drive
Cincinnati, Ohio 45268

Such notice shall reference Site/Spill ID Number 10MA and EPA docket number for this action.

74. Interest. In the event that the payments for Response Costs are not made within 30 days after Respondent's receipt of a written demand requiring payment, Respondent shall pay Interest on the unpaid balance. The Interest on Response Costs shall begin to accrue on the date of the written demand and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section. Respondent shall make all payments required by this Paragraph in the manner described in Paragraphs 71 and 72.

XXII. ENFORCEMENT/WORK TAKEOVER

75. Any willful violation, or failure or refusal to comply with any provision of this Order may subject Respondent to civil penalties of up to \$37,500 per violation per day, as provided in Section 106(b)(1) of CERCLA, 42 U.S.C. § 9606(b)(1), and the Civil Monetary Penalty Inflation Adjustment Rule, 69 Fed. Reg. 7121, 40 C.F.R Part 19.4. In the event of such willful violation, or failure or refusal to comply, EPA may carry out the required actions unilaterally, pursuant to Section 104 of CERCLA, 42 U.S.C. § 9604, and/or may seek judicial enforcement of this Order pursuant to Section 106 of CERCLA, 42 U.S.C § 9606. Respondent may also be subject to punitive damages in an amount up to three times the amount of any cost incurred by the United States as a result of such failure to comply, as provided in Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3).

XXIII. RESERVATIONS OF RIGHTS BY EPA

76. Nothing in this Order shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing in this Order shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law. EPA reserves the right to bring an action against Respondent under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any costs incurred by the United States related to this Order or the Site and not paid by Respondent.

XXIV. OTHER CLAIMS

77. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA shall not be deemed a party to any contract entered into by Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order.

78. Nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

79. Nothing in this Order shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or C.F.R. § 300.700(d).

80. No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXV. MODIFICATION

81. The EPA Project Coordinator (RPM) may make modifications to any plan or schedule or to the SOW in writing or by oral direction. Any oral modification will be memorialized in writing by EPA within 30 days, but shall have as its effective date the date of the EPA Project Coordinator's oral direction. Any other requirements of this Order may be modified in writing by signature of the Program Manager of the Remedial Cleanup Program, EPA Region 10.

82. If Respondent seeks permission to deviate from any approved Work Plan or schedule from the SOW, Respondent's Project Coordinator shall timely submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving approval from the EPA Project Coordinator pursuant to Paragraph 81.

83. No informal advice, guidance, suggestion, or comment by the EPA Project Coordinator or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified.

XXVI. DELAY IN PERFORMANCE

84. Any delay in performance of this Order that, in EPA's judgment, is not properly justified by Respondent under the terms of the following Paragraph shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondent's obligations to fully perform all obligations under the terms and conditions of this Order.

85. Respondent shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone and email to the EPA Project Coordinator within 48 hours after Respondent first knew or should have known that a delay might occur. Respondent shall adopt all reasonable measures to avoid or minimize any such delay. Within five business days after notifying EPA by telephone and email, Respondent shall provide to EPA written notification fully describing the nature of the delay, the anticipated duration of the delay, any justification for the delay, all actions taken or to be taken to prevent or mitigate the delay or the effect of the delay, a schedule for implementation of any measures to be taken to mitigate the effect of the delay, and any reason why Respondent should not be held strictly accountable for failing to comply with any relevant requirements of this Order. Increased costs or expenses associated with implementation of the activities called for in this Order is not a justification for any delay in performance.

XXVII. ADMINISTRATIVE RECORD

86. EPA has established an administrative record that contains the documents that form the basis for the issuance of this Order, including, but not limited to, the documents upon which EPA based the selection of the Remedial Actions selected in the ROD and ESD. It is available for review by appointment on weekdays between the hours of 9 and 4 at the EPA Region 10 Offices, located at 1200 6th Avenue, Seattle, WA 98101. To review the administrative record, please make an appointment by calling the Superfund Records Center at (206) 553-4494.

XXVIII. APPENDICES

87. The following appendices are attached to and incorporated into this Order:

“Appendix A” is the ROD.

“Appendix B” is the SOW.

“Appendix C” is the description and/or map of the Site.

“Appendix D” is the ESD.

XXIX. COMMUNITY INVOLVEMENT

88. If requested by EPA, Respondent shall participate in community involvement activities pursuant to the community involvement plan that has been developed by EPA. EPA will determine the appropriate role for Respondent under the Plan. Respondent shall also cooperate with EPA in providing information regarding the Work to the public. As requested by EPA, Respondent shall participate in the preparation of such information for dissemination to the public and in public meetings that may be held or sponsored by EPA to explain activities at or relating to the Site. At EPA’s discretion, Respondent shall establish a community information repository at or near the Site to house one copy of the administrative record.

XXX. OPPORTUNITY TO CONFER

89. Within 10 days after March 5, 2015, the date this Order was initially issued, Respondent sent a written request for a conference with EPA to discuss this Order and matters pertinent to this Order, including its applicability, the factual findings and the determinations upon which it is based, the appropriateness of any actions Respondent is ordered to take, or any other relevant and material issues or contentions that Respondent may have regarding this Order. A telephone conference was held between Respondent and EPA on April 2, 2015.

90. As a result of issues raised by Respondent at the conference, EPA has made modifications to the definition of Remedial Action, and Paragraphs 9, 10, 30.b, 30.f, 35.a, 40, 89, 90 and 92 of this Order.

XXXI. SEVERABILITY

91. If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order, Respondent shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

XXXII. EFFECTIVE DATE

92. This Order shall take effect on April 13, 2015.

It is so ORDERED.

BY: Cami Grandinetti DATE: 4/2/15
Cami Grandinetti, Program Manager
Remedial Cleanup Program
U.S. EPA Region 10

